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=> s l1 and biocompatible L2 367 L1 AND BIOCOMPATIBLE

=> s BMP

L3 22208 BMP

=> s OP

L4 69969 OP

=> s 13 and 14

L5 2177 L3 AND L4

=> s 15 and 12

L6 38 L5 AND L2

=> d l6 ti abs ibib tot

L6 ANSWER 1 OF 38 USPATFULL on STN

TI In-situ formed intervertebral fusion device and method
AB An orthopedic device for implanting between adjacent vertebrae
comprising: an arcuate balloon and a hardenable material within said
balloon.

In some embodimnents, the balloon has a footprint that substantially corresponds to a perimeter of a vertebral endplate. An inflatable device is inserted through a cannula into an intervertebral space and oriented so that, upon expansion, a natural angle between vertebrae will be at least partially restored. At least one component selected from the group consisting of a load-bearing component and an osteobiologic component is directed into the inflatable device through a fluid communication means.

ACCESSION NUMBER: TITLE:

INVENTOR (S):

2004:293217 USPATFULL

In-situ formed intervertebral fusion device and method DiMauro, Thomas M., Southboro, MA, UNITED STATES Slivka, Michael Andrew, Taunton, MA, UNITED STATES Malone, John Daniel, Cumberland, RI, UNITED STATES Moore, Bradley Thomas, Barrington, RI, UNITED STATES Serhan, Hassan, South Easton, MA, UNITED STATES Kadiyala, Sudhakar, South Easton, MA, UNITED STATES Bartish, Charles M., JR., Providence, RI, UNITED STATES Woodrow, Hal Brent, Princeton, NJ, UNITED STATES Rohr, William L., Palm Beach Gardens, FL, UNITED STATES Kelly, James Edward, North Easton, MA, UNITED STATES Cooper, Kevin, Flemington, NJ, UNITED STATES

Aguino, Lauren, Boston, MA, UNITED STATES

DePuy Spine, Inc., Raynham, MA (U.S. corporation) PATENT ASSIGNEE(S):

KIND DATE NUMBER ______ US 2004230309 A1 PATENT INFORMATION: 20041118 20040213 (10) APPLICATION INFO .: US 2004-778684 A1

> NUMBER DATE

______ US 2003-448221P 20030214 (60) PRIORITY INFORMATION:

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

HAMILTON, BROOK, SMITH & REYNOLDS, P.C., 530 VIRGINIA LEGAL REPRESENTATIVE:

ROAD, P.O. BOX 9133, CONCORD, MA, 01742-9133

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

28 Drawing Page(s) NUMBER OF DRAWINGS:

5024 LINE COUNT:

ANSWER 2 OF 38 USPATFULL on STN L6

Transdiscal administration of specific inhibitors of P38 kinase ТT

The present invention relates to injecting a high specificity p38 kinase AB

inhibitor into a diseased intervertebral disc.

ACCESSION NUMBER: 2004:292789 USPATFULL

Transdiscal administration of specific inhibitors of TITLE:

P38 kinase

DiMauro, Thomas M., Southboro, MA, UNITED STATES INVENTOR(S):

Serhan, Hassan, South Easton, MA, UNITED STATES Attawia, Mohamed, Canton, MA, UNITED STATES Grace, Melissa, Raynham, MA, UNITED STATES

Kadiyala, Sudhakar, South Easton, MA, UNITED STATES

Urbahns, David, Barrington, RI, UNITED STATES

Bruder, Scott, Sudbury, MA, UNITED STATES

Collins, Gregory, East Sandwich, MA, UNITED STATES Brown, Laura J., Hamilton Square, NJ, UNITED STATES

Geesin, Jeff, Doylestown, PA, UNITED STATES

Plouhar, Pamela L., South Bend, IN, UNITED STATES Smith, Catherine, East Falmouth, MA, UNITED STATES

Siekierka, John, Towaco, NJ, UNITED STATES

DePuy Spine, Inc., Raynham, MA, UNITED STATES (U.S. PATENT ASSIGNEE(S):

corporation)

KIND DATE NUMBER ______

A1 PATENT INFORMATION: US 2004229878 20041118 US 2003-631487 A1 20030731 (10) APPLICATION INFO.:

Continuation-in-part of Ser. No. US 2003-610355, filed RELATED APPLN. INFO.: on 30 Jun 2003, PENDING Continuation-in-part of Ser.

No. US 2003-456948, filed on 6 Jun 2003, PENDING

NUMBER DATE ______ PRIORITY INFORMATION: US 2003-470098P 20030513 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION HAMILTON, BROOK, SMITH & REYNOLDS, P.C., 530 VIRGINIA LEGAL REPRESENTATIVE:

ROAD, P.O. BOX 9133, CONCORD, MA, 01742-9133

NUMBER OF CLAIMS:

EXEMPLARY CLAIM: 1 LINE COUNT: 1455

Transdiscal administration of high affinity anti-MMP inhibitors ΤI

The present invention relates to injecting a high affinity antagonist of AB MMPs into a diseased intervertebral disc.

2004:291773 USPATFULL ACCESSION NUMBER:

Transdiscal administration of high affinity anti-MMP TITLE:

inhibitors

Serhan, Hassan, South Easton, MA, UNITED STATES INVENTOR(S):

> DiMauro, Thomas M., Southboro, MA, UNITED STATES Attawia, Mohamed, Canton, MA, UNITED STATES

Grace, Melissa, Raynham, MA, UNITED STATES Kadiyala, Sudhakar, South Easton, MA, UNITED STATES

Urbahns, David, Barrington, RI, UNITED STATES

Bruder, Scott, Sudbury, MA, UNITED STATES

Collins, Gregory, East Sandwich, MA, UNITED STATES PATENT ASSIGNEE(S): DePuy Spine, Inc., Raynham, MA (U.S. corporation)

NUMBER KIND DATE -----

US 2004228853 A1 20041118 US 2003-610355 A1 20030630 (10) PATENT INFORMATION: APPLICATION INFO.:

Continuation-in-part of Ser. No. US 2003-456948, filed RELATED APPLN. INFO.:

on 6 Jun 2003, PENDING

NUMBER DATE PRIORITY INFORMATION: US 2003-470098P 20030513 (60)

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: HAMILTON, BROOK, SMITH & REYNOLDS, P.C., 530 VIRGINIA

ROAD, P.O. BOX 9133, CONCORD, MA, 01742-9133

NUMBER OF CLAIMS:

EXEMPLARY CLAIM: 1 LINE COUNT: 941

L6 ANSWER 4 OF 38 USPATFULL on STN

TIComputer system and methods for producing morphogen analogs of human TDF-1

The invention disclosed herein provides methods and compositions for the AΒ computer-assisted design of morphogen analogs. Practice of the invention is enabled by the use of at least a portion of the atomic co-ordinates defining the three-dimensional structure of human transformation and differentiation factor-1 (hTDF-1) as a starting point in the design of the morphogen analogs. In addition, the invention provides methods for producing morphogen analogs of interest, and methods for testing whether the resulting analogs mimic or agonize human TDF-1-like biological activity. The invention also provides a family of morphogen analogs produced by such methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2004:121745 USPATFULL

TITLE: Computer system and methods for producing morphogen

analogs of human TDF-1

Carlson, William D., Weston, MA, UNITED STATES INVENTOR(S):

Keck, Peter C., Millbury, MA, UNITED STATES

NUMBER KIND DATE ------PATENT INFORMATION: US 2004093164 A1 20040513 . APPLICATION INFO.: US 2002-290554 A1 20021108 (10)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MINTZ, LEVIN, COHN, FERRIS, GLOVSKY, AND POPEO, P.C.,

ONE FINANCIAL CENTER, BOSTON, MA, 02111

NUMBER OF CLAIMS: 21 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 54 Drawing Page(s)

LINE COUNT: 2926

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 5 OF 38 USPATFULL on STN

TI Mutations of the C-terminal portion of TGF- β superfamily proteins

AB The invention provides modified proteins and DNAs of the TGF- β

superfamily including modified morphogenic proteins. The proteins of the present invention display altered biological or biochemical attributes. Specifically, the modified proteins are designed through substitutions of amino acids in the finger 2 sub-domain or exchanges of all or part of the finger 2 sub-domain of one TGF- β superfamily member with the

finger 2 sub-domain of another TGF- β superfamily member.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2004:9647 USPATFULL

TITLE: Mutations of the C-terminal portion of $TGF-\beta$

superfamily proteins

INVENTOR(S): Oppermann, Hermann, Medway, MA, United States

Tai, Mei-Sheng, Shrewsbury, MA, United States McCartney, John, Holliston, MA, United States

PATENT ASSIGNEE(S): Stryker Corporation, Kalamazoo, MI, United States (U.S.

corporation)

NUMBER KIND DATE
US 6677432 B1 20040113

PATENT INFORMATION: APPLICATION INFO.:

US 1999-374958 19990816 (9)

NUMBER DATE

PRIORITY INFORMATION: US 1998-103418P 19981007 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED PRIMARY EXAMINER: Spector,

PRIMARY EXAMINER: Spector, Lorraine

ASSISTANT EXAMINER: Seharaseyon, Jegatheesan

LEGAL REPRESENTATIVE: Fish & Neave, Haley, Jr., James F., Mangasarian, Karen

NUMBER OF CLAIMS: 13 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 8 Drawing Figure(s); 12 Drawing Page(s)

LINE COUNT: 4992

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 6 OF 38 USPATFULL on STN

TI Morphogen analogs of bone morphogenic proteins

AB The present invention relates to morphogen analogs, particularly analogs of a BMP, such as OP-1, that are agonists or antagonists of a BMP, such as OP-1, biological

activity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:264778 USPATFULL

TITLE: Morphogen analogs of bone morphogenic proteins

INVENTOR(S): Keck, Peter C., Millbury, MA, UNITED STATES

Bosukonda, Dattatreyamurty, Shrewsbury, MA, UNITED

STATES

PATENT ASSIGNEE(S): Curis, Inc., Cambridge, MA (U.S. corporation)

APPLICATION INFO.: US 2002-164279 A1 20020606 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2001-791946, filed

on 22 Feb 2001, PENDING Continuation of Ser. No. US 1997-786284, filed on 22 Jan 1997, GRANTED, Pat. No. US

6273598 Continuation-in-part of Ser. No. US 1996-589552, filed on 22 Jan 1996, ABANDONED

NUMBER DATE

PRIORITY INFORMATION: US 2002-354820P 20020205 (60)

US 2002-371298P 20020410 (60)

US 2001-296291P 20010606 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: ROPES & GRAY, ONE INTERNATIONAL PLACE, BOSTON, MA,

02110-2624

NUMBER OF CLAIMS: 52 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 28 Drawing Page(s)

LINE COUNT: 4870

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 7 OF 38 USPATFULL on STN

TI Single chain analogs of the TGF-beta superfamily (morphons)

Disclosed are a family of single-chain polypeptide constructs designed to agonize or mimic members of the TGF- β superfamily by binding to a cell surface receptor complementary to the superfamily member. The single-chain constructs of the invention called "morphons" contain in a single biologically active subunit interacting finger and heel regions which together define a tertiary protein structure complimentary to the ligand binding surface of a receptor that binds a TGF- β superfamily member. Also disclosed are truncated versions of the morphon constructs. Methods are disclosed for making and using single-chain morphons that have binding affinity for predetermined receptors of the TGF- β superfamily.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:251878 USPATFULL

TITLE: Single chain analogs of the TGF-beta superfamily

(morphons)

INVENTOR(S): Keck, Peter C., Millbury, MA, UNITED STATES

Smart, John E., Weston, MA, UNITED STATES

PATENT ASSIGNEE(S): Stryker Corporation (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2003176667 A1 20030918

APPLICATION INFO.: US 2002-187394 A1 20020628 (10) RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-49639

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-496398, filed on 2 Feb 2000, GRANTED, Pat. No. US 6479643 Continuation of Ser. No. US 1995-478097, filed on 7 Jun 1995, GRANTED, Pat.

No. US 1995-476097, Tiled On 7 Jun 1995, GRANTED, Pat.

No. US 6040431

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: TESTA, HURWITZ & THIBEAULT, LLP, HIGH STREET TOWER, 125

HIGH STREET, BOSTON, MA, 02110

NUMBER OF CLAIMS: 26 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 23 Drawing Page(s)

LINE COUNT: 4012

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 8 OF 38 USPATFULL on STN

TI Metal reinforced biodegradable intraluminal stents

AB The present invention provides an intraluminal stent comprising a

metallic reinforcing component and a biodegradable polymeric material covering at least a portion of the metallic reinforcing component. The metallic reinforcing component provides structural reinforcement for the stent, but this reinforcement is insufficient, in the absence of the biodegradable polymeric material, to provide a stent capable of maintaining patency of a lumen upon implantation of the stent into the lumen. One advantage of the present invention, among others, is that a stent is provided in which reduced amounts of metallic component remain after degradation of the biodegradable polymeric material covering, in turn reducing the incidence of metal-associated adverse events that frequently follow implantation.

ACCESSION NUMBER:

2003:220679 USPATFULL

TITLE: INVENTOR(S): Metal reinforced biodegradable intraluminal stents Chandrasekaran, Chandru, Mercer Island, WA, UNITED

STATES

NUMBER

_____ US 2003153971 Α1 20030814

PATENT INFORMATION: APPLICATION INFO.: DOCUMENT TYPE:

US 2002-75914 A1 20020214 (10) Utility

KIND

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE:

MAYER, FORTKORT & WILLIAMS, PC, 251 NORTH AVENUE WEST,

DATE

2ND FLOOR, WESTFIELD, NJ, 07090

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

27

NUMBER OF DRAWINGS:

3 Drawing Page(s)

LINE COUNT:

951

L6 ANSWER 9 OF 38 USPATFULL on STN

TΙ Methods and compositions for the treatment and prevention of parkinson's

AΒ Disclosed are therapeutic treatment methods, compositions and devices for maintaining neural pathways in a mammal, including enhancing survival of neurons at risk of dying, inducing cellular repair of damaged neurons and neural pathways, and stimulating neurons to maintain their differentiated phenotype. In one embodiment, the invention provides means for stimulating CAM expression in neurons. The invention also provides means for evaluating the status of nerve tissue, including means for detecting and monitoring neuropathies in a mammal. The methods, devices and compositions include a morphogen or morphogen-stimulating agent provided to the mammal in a therapeutically effective concentration.

CAS INDEXING IS AVAILABLE FOR THIS PATENT. ACCESSION NUMBER:

2003:159830 USPATFULL

TITLE:

Methods and compositions for the treatment and

prevention of parkinson's disease

INVENTOR (S):

Rueger, David C., Southborough, MA, UNITED STATES Sampath, Kuber T., Holliston, MA, UNITED STATES Cohen, Charles M., Weston, MA, UNITED STATES Oppermann, Hermann, Medway, MA, UNITED STATES

Pang, Roy H.L., Etna, NH, UNITED STATES

NUMBER	KIND	DATE

PATENT INFORMATION: APPLICATION INFO.: RELATED APPLN. INFO.: US 2003109445 Α1 20030612 US 2002-272503 A1 20021016 (10)

Continuation of Ser. No. US 1997-938622, filed on 25

Sep 1997, GRANTED, Pat. No. US 6506729

Continuation-in-part of Ser. No. US 1994-260675, filed on 16 Jun 1994, PENDING Continuation of Ser. No. US

1993-126100, filed on 23 Sep 1993, ABANDONED

Continuation of Ser. No. US 1992-922813, filed on 31 Jul 1992, ABANDONED Continuation-in-part of Ser. No. US

1991-752764, filed on 30 Aug 1991, ABANDONED

Continuation-in-part of Ser. No. US 1991-753059, filed on 30 Aug 1991, ABANDONED Continuation-in-part of Ser. No. US 1991-667274, filed on 11 Mar 1991, ABANDONED

DOCUMENT TYPE: FILE SEGMENT:

Utility APPLICATION

LEGAL REPRESENTATIVE:

ROPES & GRAY, ONE INTERNATIONAL PLACE, BOSTON, MA,

02110-2624

NUMBER OF CLAIMS:

14 1

EXEMPLARY CLAIM: NUMBER OF DRAWINGS:

13 Drawing Page(s)

LINE COUNT:

3035

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 10 OF 38 USPATFULL on STN L6

ΤI Shaped particle comprised of bone material and method of making the

particle

AB A shaped particle for use in an array of interlocking particles to repair, replace, improve or augment a bone deficiency is provided. The particle is comprised of bone material and, in a preferred embodiment, has six extremities, and the interstitial spaces between the extremities of one particle accept the extremities of an adjacent particle in an array. In a preferred embodiment, the bone material is demineralized bone material. In some embodiments, the particle is suspended in a material that facilitates application of the particle to bone, and the material may contain biological factors that augment bone growth or prevent infection.

ACCESSION NUMBER:

2003:79582 USPATFULL

TITLE:

Shaped particle comprised of bone material and method

of making the particle

INVENTOR (S):

Schryver, Jeffrey E., Cordova, TN, UNITED STATES Cooper, Michael B., Memphis, TN, UNITED STATES Kinnane, Keith M., Bartlett, TN, UNITED STATES

Long, Marc, Memphis, TN, UNITED STATES Allen, Trevor, York, UNITED KINGDOM Margerrison, Ed, York, UNITED KINGDOM

Morgan, Robert, UNITED STATES

Bearcroft, Julie A., Bartlett, TN, UNITED STATES

Harrison, Andrew, York, UNITED KINGDOM

Kaiser, William B., Sunnyvale, CA, UNITED STATES

NUMBER	KIND	DATE
US 2003055511	A1	20030320

PATENT INFORMATION: APPLICATION INFO.:

US 2002-99616 Α1 20020315 (10)

RELATED APPLN. INFO.:

Continuation-in-part of Ser. No. US 2000-517981, filed on 3 Mar 2000, PENDING Continuation-in-part of Ser. No.

US 2001-792681, filed on 23 Feb 2001, PENDING

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE:

Smith & Nephew, Inc., 1450 Brooks Road, Memphis, TN,

38116

NUMBER OF CLAIMS:

103

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS:

36 Drawing Page(s)

LINE COUNT:

TI

3099

ANSWER 11 OF 38 USPATFULL on STN 1.6

Cartilage repair and regeneration device and method

A method for the repair of a cartilagenous tissue defect, a cartilage AB repair device and a method of making a cartilage repair device are

disclosed. In the method for the repair of a cartilagenous tissue defect, a device comprising a scaffold, for example an extracellular matrix material, is implanted into the defect, and a biological lubricant is administered to the defect. The device comprises a scaffold, for example a naturally occurring extracellular matrix material, and a biological lubricant.

ACCESSION NUMBER:

2003:45709 USPATFULL

TITLE: INVENTOR(S): Cartilage repair and regeneration device and method Plouhar, Pamela Lynn, South Bend, IN, UNITED STATES Malaviya, Prasanna, Ft. Wayne, IN, UNITED STATES

Schwartz, Herbert Eugene, Ft. Wayne, IN, UNITED STATES

NUMBER KIND DATE PATENT INFORMATION: US 2003033022 A1 20030213 APPLICATION INFO.: US 2002-195606 A1 20020715 (10)

> DATE NUMBER

PRIORITY INFORMATION:

20020614 (60). US 2002-388724P US 2001-305786P 20010716 (60)

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE:

BARNES & THORNBURG, 11 SOUTH MERIDIAN, INDIANAPOLIS,

NUMBER OF CLAIMS:

60

EXEMPLARY CLAIM:

1

NUMBER OF DRAWINGS:

5 Drawing Page(s)

LINE COUNT:

L6 ANSWER 12 OF 38 USPATFULL on STN

TIMethods for enhancing functional recovery following central nervous

system ischemia or trauma

ABThe present invention provides methods and compositions for treatment of mammals afflicted with an ischemic or traumatic injury of the central nervous system. The present invention capitalizes in part upon the discovery that administration of a morphogen to such a mammal provides significant improvement in central nervous system function, even when administered after central nervous system tissue has been damaged. The methods involve the administration of dimeric proteins defined as morphogens, inducers of these morphogens, or agonists of the corresponding morphogen receptors, or implantation of cells stimulated by exposure to the morphogens. The proteins defined as morphogens comprise a structurally and functionally distinct family within the TGF- β superfamily. Osteogenic protein-1 (**OP**-1) is considered to be an exemplary and preferred member of this morphogen family.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2003:30881 USPATFULL

TITLE:

Methods for enhancing functional recovery following

central nervous system ischemia or trauma

INVENTOR(S): Charette, Marc F., Needham, MA, UNITED STATES

Finklestein, Seth P., Needham, MA, UNITED STATES

NUMBER KIND DATE ----- ----- ----- -----PATENT INFORMATION: US 2003022830 A1 20030130 US 2002-62370 A1 20020201 APPLICATION INFO.:

A1 20020201 (10) RELATED APPLN. INFO.:

Continuation of Ser. No. US 1997-828281, filed on 21 Mar 1997, PENDING Continuation-in-part of Ser. No. US

1996-620444, filed on 22 Mar 1996, ABANDONED

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE:

ROPES & GRAY, ONE INTERNATIONAL PLACE, BOSTON, MA,

02110-2624

NUMBER OF CLAIMS:

26

EXEMPLARY CLAIM:

1

NUMBER OF DRAWINGS:

14 Drawing Page(s)

LINE COUNT:

2127

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 13 OF 38 USPATFULL on STN

TI Methods and compositions for the treatment and prevention of Parkinson's

disease

AB Disclosed are therapeutic treatment methods, compositions and devices for maintaining neural pathways in a mammal, including enhancing

survival of neurons at risk of dying, inducing cellular repair of damaged neurons and neural pathways, and stimulating neurons to maintain their differentiated phenotype. In one embodiment, the invention provides means for stimulating CAM expression in neurons. The invention also provides means for evaluating the status of nerve tissue, including means for detecting and monitoring neuropathies in a mammal. The methods, devices and compositions include a morphogen or

morphogen-stimulating agent provided to the mammal in a therapeutically

effective concentration.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2003:13291 USPATFULL

TITLE:

Methods and compositions for the treatment and

prevention of Parkinson's disease

INVENTOR (S):

Rueger, David C., Southborough, MA, United States Sampath, Kuber T., Holliston, MA, United States Cohen, Charles M., Weston, MA, United States Oppermann, Hermann, Medway, MA, United States Pang, Roy H. L., Etna, NH, United States

PATENT ASSIGNEE(S):

Curis, Inc., Cambridge, MA, United States (U.S.

corporation)

NUMBER		KIND	DATE	
US	6506729	B1	20030114	
US	1997-938622		19970925	(8)

PATENT INFORMATION: APPLICATION INFO.: RELATED APPLN. INFO.:

Continuation-in-part of Ser. No. US 1994-260675, filed on 16 Jun 1994 Continuation of Ser. No. US 1993-126100, filed on 23 Sep 1993, now abandoned Continuation of Ser. No. US 1992-922813, filed on 31 Jul 1992, now abandoned Continuation-in-part of Ser. No. US 1991-752764, filed on 30 Aug 1991, now abandoned

Continuation-in-part of Ser. No. US 1991-753059, filed on 30 Aug 1991, now abandoned Continuation-in-part of Ser. No. US 1991-667274, filed on 8 Mar 1991, now

abandoned

DOCUMENT TYPE: FILE SEGMENT:

Utility GRANTED

PRIMARY EXAMINER:
ASSISTANT EXAMINER:

Kunz, Gary L.
Gucker, Stephen
Ropes & Gray

LEGAL REPRESENTATIVE: NUMBER OF CLAIMS:

6 1

EXEMPLARY CLAIM: NUMBER OF DRAWINGS:

16 Drawing Figure(s); 13 Drawing Page(s)

LINE COUNT:

2995

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 14 OF 38 USPATFULL on STN

TI Morphogen treatment for chronic renal failure

AB The present invention provides methods for the treatment, and

pharmaceuticals for use in the treatment, of mammalian subjects at risk chronic renal failure, or at risk of a need for renal replacement therapy. The methods involve the administration of certain morphogens, inducers of those morphogens, or agonists of the corresponding morphogen receptors, or implantation of renal cells induced with those morphogens. The morphogens useful in the invention include osteogenic protein-1 (OP-1) and other members of the OP-1 subfamily of the $TGF-\beta$ superfamily of growth factors.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:340311 USPATFULL

TITLE: Morphogen treatment for chronic renal failure INVENTOR(S): Sampath, Kuber T., Holliston, MA, United States

Cohen, Charles M., Weston, MA, United States

PATENT ASSIGNEE(S): Curis, Inc., Cambridge, MA, United States (U.S.

corporation)

NUMBER KIND DATE -----US 6498142 PATENT INFORMATION: B1 20021224

APPLICATION INFO.: US 1996-643321 19960506 (8)

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Celsa, Bennett

LEGAL REPRESENTATIVE: Ropes & Gray, Vincent, Matthew P., Schneider, Spencer

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 10 Drawing Figure(s); 18 Drawing Page(s)

LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 15 OF 38 USPATFULL on STN

TI Single chain analogs of the $TGF-\beta$ superfamily (morphons)

Disclosed are a family of single-chain polypeptide constructs designed AΒ to agonize or mimic members of the TGF- β superfamily by binding to a cell surface receptor complementary to the superfamily member. The single-chain constructs of the invention called "morphons" contain in a single biologically active subunit interacting finger and heel regions which together define a tertiary protein structure complimentary to the ligand binding surface of a receptor that binds a TGF-\$\beta\$ superfamily member . Also disclosed are truncated versions of the morphon constructs. Methods are disclosed for making and using single-chain morphons that have binding affinity for predetermined receptors of the TGF- β superfamily.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:297691 USPATFULL

TITLE: Single chain analogs of the TGF-β superfamily

(morphons)

INVENTOR(S): Keck, Peter C., Millbury, MA, United States

Smart, John E., Weston, MA, United States

PATENT ASSIGNEE(S): Stryker Corporation, Kalamazoo, MI, United States (U.S.

corporation)

NUMBER KIND DATE ----- -----US 6479643 PATENT INFORMATION: B1 20021112 APPLICATION INFO.: US 2000-496398

20000202 (9) RELATED APPLN. INFO.:

Continuation of Ser. No. US 1995-478097, filed on 7 Jun 1995, now patented, Pat. No. US 6040431, issued on 21

Sep 2000

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED

Allen, Marianne P. PRIMARY EXAMINER:

LEGAL REPRESENTATIVE: Testa, Hurwitz & Thibeault, LLP

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

ΤI

AΒ

NUMBER OF DRAWINGS: 41 Drawing Figure(s); 23 Drawing Page(s)

LINE COUNT: 3930

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 16 OF 38 USPATFULL on STN L6

Terminally sterilized osteogenic devices and preparation thereof Disclosed are terminally sterilized osteogenic devices for implantation into a mammal. The devices contain a combination of a biologically active osteogenic protein and an insoluble carrier which after being combined are sterilized by exposure to ionizing radiation, for example, by exposure to gamma rays or an electron beam. The terminally sterilized devices of the invention are characterized in that they induce bone formation following implantation into a mammal. Also disclosed is a method for inducing bone formation in a mammal by implanting a terminally sterilized device of the invention into a preselected locus in a mammal. Also disclosed is a method for preparing the terminally sterilized device of the invention.

ACCESSION NUMBER: 2002:262069 USPATFULL

TITLE: Terminally sterilized osteogenic devices and

preparation thereof

INVENTOR(S): Tucker, Marjorie M., Holliston, MA, United States

> Rueger, David C., Southborough, MA, United States Sampath, Kuber T., Holliston, MA, United States

PATENT ASSIGNEE(S): Stryker Corporation, Kalamazoo, MI, United States (U.S.

corporation)

NUMBER KIND DATE US 6461630 PATENT INFORMATION: B1 20021008 APPLICATION INFO.: US 1999-450541 19991130 (9)

Continuation of Ser. No. US 1998-159535, filed on 23 RELATED APPLN. INFO.:

Sep 1998, now patented, Pat. No. US 6013856

Continuation of Ser. No. US 1997-881307, filed on 24 Jun 1997, now patented, Pat. No. US 6028242 Division of Ser. No. US 1995-478452, filed on 7 Jun 1995, now

patented, Pat. No. US 5674292

DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Fredman, Jeffrey ASSISTANT EXAMINER: Chakrabarti, Arun K. Testa, Hurwitz & Thibeault, LLP

LEGAL REPRESENTATIVE: NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)

LINE COUNT:

L6 ANSWER 17 OF 38 USPATFULL on STN

TΤ Terminally sterilized osteogenic devices and preparation thereof AΒ Disclosed are terminally sterilized osteogenic devices for implantation into a mammal. The devices contain a combination of a biologically active osteogenic protein and an insoluble carrier which after being combined are sterilized by exposure to ionizing radiation, for example, by exposure to gamma rays or an electron beam. The terminally sterilized devices of the invention are characterized in that they induce bone formation following implantation into a mammal. Also disclosed is a method for inducing bone formation in a mammal by implanting a terminally sterilized device of the invention into a preselected locus in a mammal. Also disclosed is a method for preparing the terminally sterilized device of the invention.

ACCESSION NUMBER:

2002:198300 USPATFULL

TITLE:

Terminally sterilized osteogenic devices and

preparation thereof

INVENTOR(S):

Tucker, Marjorie M., Holliston, MA, UNITED STATES Rueger, David C., Southborough, MA, UNITED STATES Sampath, Kuber T., Holliston, MA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002106394	A1	20020808	
	US 6504079	B2	20030107	
APPLICATION INFO.:	US 2001-954748	A1	20010918	(9)

RELATED APPLN. INFO.:

Continuation of Ser. No. US 1999-450541, filed on 30

Nov 1999, PENDING Continuation of Ser. No. US

1998-159535, filed on 23 Sep 1998, GRANTED, Pat. No. US 6013856 Continuation of Ser. No. US 1997-881307, filed on 24 Jun 1997, GRANTED, Pat. No. US 6028242 Division of Ser. No. US 1995-478452, filed on 7 Jun 1995,

GRANTED, Pat. No. US 5674292

DOCUMENT TYPE: Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE:

TESTA, HURWITZ & THIBEAULT, LLP, HIGH STREET TOWER, 125

HIGH STREET, BOSTON, MA, 02110

NUMBER OF CLAIMS:

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS:

1 Drawing Page(s)

LINE COUNT:

1342

L6 ANSWER 18 OF 38 USPATFULL on STN

TI Method for enhancing functional recovery following central nervous

system ischemia or trauma

The present invention provides methods and compositions for treatment of mammals afflicted with an ischemic or traumatic injury of the central nervous system. The present invention capitalizes in part upon the discovery that administration of a morphogen to such a mammal provides significant improvement in central nervous system function, even when administered after central nervous system tissue has been damaged. The methods involve the administration of dimeric proteins defined as morphogens, inducers of these morphogens, or agonists of the corresponding morphogen receptors, or implantation of cells stimulated by exposure to the morphogens. The proteins defined as morphogens comprise a structurally and functionally distinct family within the TGF-β superfamily. Osteogenic protein-1 (OP-1) is considered to be an exemplary and preferred member of this morphogen family.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2002:144236 USPATFULL

TITLE:

Method for enhancing functional recovery following

central nervous system ischemia or trauma

INVENTOR(S):

Charette, Marc F., Needham, MA, United States Finklestein, Seth P., Needham, MA, United States

Curis, Inc., Cambridge, MA, United States (U.S.

corporation)

NUMBER KIND DATE

PATENT INFORMATION:

PATENT ASSIGNEE(S):

US 6407060 B1 20020618 US 1997-828281 19970321

APPLICATION INFO.: RELATED APPLN. INFO.:

Continuation-in-part of Ser. No. US 1996-620444, filed

on 22 Mar 1996, now abandoned

DOCUMENT TYPE: FILE SEGMENT:

Utility GRANTED

PRIMARY EXAMINER:

Henley, III, Raymond

ASSISTANT EXAMINER:

Delacroix-Muirheid, C.

LEGAL REPRESENTATIVE:

Ropes & Gray

NUMBER OF CLAIMS:

30

EXEMPLARY CLAIM:

1

NUMBER OF DRAWINGS:

14 Drawing Figure(s); 14 Drawing Page(s)

LINE COUNT:

2459

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

1.6 ANSWER 19 OF 38 USPATFULL on STN

ТT Soluble morphogenic protein complex compositions of matter

Disclosed are novel compositions of morphogenic proteins constituting AB soluble forms of these proteins, antibodies that distinguish between soluble and mature forms, and method for producing these morphogenic proteins and antibodies.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2002:122758 USPATFULL

TITLE:

Soluble morphogenic protein complex compositions of

matter

INVENTOR (S):

Jones, William K., Brookline, MA, United States Tucker, Ronald F., Holliston, MA, United States Rueger, David C., Hopkinton, MA, United States Oppermann, Hermann, Medway, MA, United States Ozkaynak, Engin, Milford, MA, United States

Kuberasampath, Thangavel, Medway, MA, United States

PATENT ASSIGNEE(S):

Curis, Inc., Cambridge, MA, United States (U.S.

corporation)

NUMBER KIND DATE ----- ----**---**US 6395883 B1 20020528 19950313 (8)

PATENT INFORMATION: APPLICATION INFO.:

US 1995-402542 Continuation of Ser. No. US 1993-40510, filed on 31 Mar RELATED APPLN. INFO.:

> 1993, now abandoned Continuation-in-part of Ser. No. US 1993-29335, filed on 4 Mar 1993, now abandoned Continuation-in-part of Ser. No. US 1992-971091, filed

on 3 Nov 1992, now abandoned Continuation-in-part of Ser. No. US 1992-946235, filed on 16 Sep 1992, now abandoned Continuation-in-part of Ser. No. US 1992-938336, filed on 28 Aug 1992, now abandoned

Continuation-in-part of Ser. No. US 1992-923780, filed on 31 Jul 1992, now abandoned Continuation-in-part of Ser. No. US 1991-752857, filed on 30 Aug 1991, now abandoned Continuation-in-part of Ser. No. US

1991-752764, filed on 30 Aug 1991, now abandoned Continuation-in-part of Ser. No. US 1991-667274, filed

on 11 Mar 1991, now abandoned

DOCUMENT TYPE:

Utility GRANTED

FILE SEGMENT:

Kemmerer, Elizabeth

PRIMARY EXAMINER: LEGAL REPRESENTATIVE:

Testa Hurwitz & Thibeault

NUMBER OF CLAIMS:

15

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS:

3 Drawing Figure(s); 2 Drawing Page(s)

LINE COUNT:

1552

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 20 OF 38 USPATFULL on STN L6

METHODS AND COMPOSITIONS FOR THE TREATMENT OF MOTOR NEURON INJURY AND TINEUROPATHY

AB Disclosed are therapeutic treatment methods, compositions and devices for maintaining neural pathways in a mammal, including enhancing survival of neurons at risk of dying, inducing cellular repair of damaged neurons and neural pathways, and stimulating neurons to maintain

their differentiated phenotype. In one embodiment, the invention provides means for stimulating CAM expression in neurons. The invention also provides means for evaluating the status of nerve tissue, including means for detecting and monitoring neuropathies in a mammal. The methods, devices and compositions include a morphogen or morphogen-stimulating agent provided to the mammal in a therapeutically effective concentration.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2002:92635 USPATFULL

TITLE:

METHODS AND COMPOSITIONS FOR THE TREATMENT OF MOTOR

NEURON INJURY AND NEUROPATHY

INVENTOR(S):

RUEGER, DAVID C., SOUTHBOROUGH, MA, UNITED STATES SAMPATH, KUBER T., HOLLISTON, MA, UNITED STATES OPPERMANN, HERMAN, MEDWAY, MA, UNITED STATES PANG, ROY H. L., NEW HAMPSHIRE, MA, UNITED STATES COHEN, CHARLES M., WESTON, MA, UNITED STATES

NUMBER KIND DATE ***----**US 2002049159 A1 US 6723698 B2 20020425 20040420 A1 US 1997-937755

RELATED APPLN. INFO.:

PATENT INFORMATION:

APPLICATION INFO.: 19970925 (8) Continuation-in-part of Ser. No. US 1994-260675, filed

on 16 Jun 1994, PENDING Continuation of Ser. No. US

1993-126100, filed on 23 Sep 1993, ABANDONED

Continuation of Ser. No. US 1992-922813, filed on 31 Jul 1992, ABANDONED Continuation-in-part of Ser. No. US

1991-752764, filed on 30 Aug 1991, ABANDONED

Continuation-in-part of Ser. No. US 1991-753059, filed on 30 Aug 1991, ABANDONED Continuation-in-part of Ser. No. US 1991-667274, filed on 11 Mar 1991, ABANDONED

DOCUMENT TYPE: FILE SEGMENT:

Utility APPLICATION

LEGAL REPRESENTATIVE:

IVOR R ELRIFI, MINTZ LEVIN, ONE FINANCIAL CENTER,

BOSTON, MA, 02111

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

23 1

NUMBER OF DRAWINGS:

17 Drawing Page(s)

LINE COUNT:

3688

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 21 OF 38 USPATFULL on STN

Methods and compositions for producing morphogen analogs TI

The invention disclosed herein provides methods and compositions for the AB computer-assisted design of morphogen analogs. Practice of the invention is enabled by the use of at least a portion of the atomic co-ordinates defining the three-dimensional structure of human osteogenic protein-1 (hOP-1) as a starting point in the design of the morphogen analogs. In addition, the invention provides methods for producing morphogen analogs of interest, and methods for testing whether the resulting analogs mimic or agonize human OP-1-like biological activity. The invention also provides a family of morphogen analogs produced by such methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2002:48262 USPATFULL

TITLE:

Methods and compositions for producing morphogen

INVENTOR(S):

Keck, Peter C., Millbury, MA, UNITED STATES Griffith, Diana L., Weston, MA, UNITED STATES Carlson, William D., Weston, MA, UNITED STATES Rueger, David C., Hopkinton, MA, UNITED STATES Sampath, Kuber T., Medway, MA, UNITED STATES

NUMBER KIND DATE

PATENT INFORMATION: US 2002028453 A1 20020307 APPLICATION INFO.: US 2001-791946 A1 20010222 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1997-786284, filed on 22

Jan 1997, GRANTED, Pat. No. US 6273598

Continuation-in-part of Ser. No. US 1996-589552, filed

on 22 Jan 1996, ABANDONED

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: c/o MINTZ, LEVIN, One Financial Center, Boston, MA,

02111

NUMBER OF CLAIMS: 23 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 98 Drawing Page(s)

LINE COUNT: 2974

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 22 OF 38 USPATFULL on STN

TI Treatment to prevent loss of and/or increase bone mass in metabolic bone

diseases

AB The invention is a treatment for increasing the bone mass or preventing bone loss in an individual afflicted with a bone disease which includes

administering to the individual a morphogen in a therapeutically effective amount so as to maintain or stimulate bone formation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:235237 USPATFULL

TITLE: Treatment to prevent loss of and/or increase bone mass

in metabolic bone diseases

INVENTOR(S): Kuberasampath, Thangavel, Medway, MA, United States

Cohen, Charles M., Weston, MA, United States Oppermann, Herrmann, Medway, MA, United States Ozkaynak, Engin, Milford, MA, United States Rueger, David C., Hopkinton, MA, United States Smart, John E., Weston, MA, United States

Pang, Roy H. L., Etna, NH, United States

PATENT ASSIGNEE(S): Curis, Inc., United States (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 6333312 B1 20011225 APPLICATION INFO.: US 1998-170936 19981013 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1995-432883, filed on 2 May

1995, now abandoned Continuation of Ser. No. US
1993-115914, filed on 1 Sep 1993, now abandoned
Continuation of Ser. No. US 1992-923780, filed on 31
Jul 1992, now abandoned Continuation-in-part of Ser.
No. US 1991-752764, filed on 30 Aug 1991, now abandoned
Continuation-in-part of Ser. No. US 1991-752857, filed
on 30 Aug 1991, now abandoned Continuation-in-part of
Ser. No. US 1991-667274, filed on 11 Mar 1991, now

abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Kemmerer, Elizabeth

LEGAL REPRESENTATIVE: Walker, Shelby J., Morency, MichaelMintz, Levin, Cohn,

Ferris, Glovsky and Popeo, P.C.

NUMBER OF CLAIMS: 14 EXEMPLARY CLAIM: 1

1

NUMBER OF DRAWINGS: 16 Drawing Figure(s); 12 Drawing Page(s)

LINE COUNT: 2203

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 23 OF 38 USPATFULL on STN L6

ΤI Repair of larynx, trachea, and other fibrocartilaginous tissues Provided herein are methods and devices for inducing the formation of AΒ functional replacement nonarticular cartilage tissues and ligament tissues. These methods and devices involve the use of osteogenic

proteins, and are useful in repairing defects in the larynx, trachea, interarticular menisci, intervertebral discs, ear, nose, ribs and other

fibrocartilaginous tissues in a mammal.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

2001:165613 USPATFULL ACCESSION NUMBER:

TITLE: Repair of larynx, trachea, and other fibrocartilaginous

tissues

Vukicevic, Slobodan, Zagreb, Croatia INVENTOR(S):

Katic, Vladimir, Zagreb, Croatia

Sampath, Kuber T., Holliston, MA, United States

PATENT ASSIGNEE(S): Creative BioMolecules, Inc. (non-U.S. corporation)

NUMBER KIND DATE -----

PATENT INFORMATION: APPLICATION INFO.:

US 2001024823 A1 20010927 US 2001-828607 A1 20010406 (9)

RELATED APPLN. INFO.:

Continuation of Ser. No. WO 1999-US17222, filed on 30

Jul 1999, UNKNOWN

NUMBER DATE

PRIORITY INFORMATION:

US 1998-103161P 19981006 (60)

DOCUMENT TYPE: FILE SEGMENT:

Utility APPLICATION

LEGAL REPRESENTATIVE: FISH & NEAVE, 1251 AVENUE OF THE AMERICAS, 50TH FLOOR,

NEW YORK, NY, 10020-1105

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

LINE COUNT:

1859

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 24 OF 38 USPATFULL on STN

TIComputer system and methods for producing morphogen analogs of human **OP**-1

AB

The invention disclosed herein provides methods and compositions for the computer-assisted design of morphogen analogs. Practice of the invention is enabled by the use of at least a portion of the atomic co-ordinates defining the three-dimensional structure of human osteogenic protein-1 (hOP-1) as a starting point in the design of the morphogen analogs. In addition, the invention provides methods for producing morphogen analogs of interest, and methods for testing whether the resulting analogs mimic or agonize human OP-1-like biological activity. The invention also provides a family of morphogen analogs produced by such methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2001:130327 USPATFULL

TITLE:

Computer system and methods for producing morphogen

analogs of human OP-1

INVENTOR(S):

Keck, Peter C., Millbury, MA, United States Griffith, Diana L., Weston, MA, United States Carlson, William D., Weston, MA, United States Rueger, David C., Hopkinton, MA, United States Sampath, Kuber T., Medway, MA, United States

PATENT ASSIGNEE(S):

Creative BioMolecules, Inc., Boston, MA, United States

(U.S. corporation)

NUMBER KIND DATE

20010814 B1 PATENT INFORMATION: US 6273598 19970122 (8) US 1997-786284 APPLICATION INFO.:

Continuation-in-part of Ser. No. US 1996-589552, filed RELATED APPLN. INFO.:

on 22 Jan 1996, now abandoned

DOCUMENT TYPE: Utility GRANTED FILE SEGMENT:

Horlick, Kenneth R. PRIMARY EXAMINER:

Siew, Jeffrey ASSISTANT EXAMINER:

Elrifi, Ivor R., Morency, MichelMintz, Levin, Cohn, LEGAL REPRESENTATIVE:

Ferris, Glovsky & Popeo, PC

NUMBER OF CLAIMS: 21 EXEMPLARY CLAIM: 1

108 Drawing Figure(s); 98 Drawing Page(s) NUMBER OF DRAWINGS:

LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 25 OF 38 USPATFULL on STN L6 60A protein-induced morphogenesis ΤI

Disclosed are methods of utilizing a morphogenically active fragment of AB 60A protein to induce tissue morphogenesis, including methods for increasing a progenitor cell population in a mammal, methods for stimulating progenitor cells to differentiate and maintain their differentiated phenotype in vivo or in vitro, methods for inducing tissue-specific growth in vivo and methods for the replacement of diseased or damaged tissue in vivo.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2001:48020 USPATFULL

TITLE: INVENTOR(S): 60A protein-induced morphogenesis

Kuberasampath, Thangavel, Medway, MA, United States

Pang, Roy H. L., Etna, NH, United States Oppermann, Hermann, Medway, MA, United States Rueger, David C., Hopkinton, MA, United States Cohen, Charles M., Medway, MA, United States

PATENT ASSIGNEE(S):

PATENT INFORMATION:

Curis, Inc., United States (U.S. corporation)

NUMBER	KIND	DATE
US 6211146	B1	20010403
US 1994-271556		19940707

APPLICATION INFO.: RELATED APPLN. INFO.:

(8) Continuation of Ser. No. US 1992-945292, filed on 15 Sep 1992, now abandoned Continuation-in-part of Ser. No. US 1992-922813, filed on 31 Jul 1992, now abandoned Continuation-in-part of Ser. No. US 1991-752764, filed on 30 Aug 1991, now abandoned Continuation-in-part of Ser. No. US 1991-667274, filed on 11 Mar 1991, now abandoned Continuation-in-part of Ser. No. US

1992-923780, filed on 31 Jul 1992, now abandoned Continuation-in-part of Ser. No. US 1991-752764, filed on 30 Aug 1991, now abandoned Continuation-in-part of Ser. No. US 1991-752857, filed on 30 Aug 1991, now abandoned Continuation-in-part of Ser. No. US 1991-667274, filed on 11 Mar 1991, now abandoned

Continuation-in-part of Ser. No. US 1991-753059, filed on 30 Aug 1991, now abandoned Continuation-in-part of Ser. No. US 1991-667274, filed on 11 Mar 1991, now

abandoned DOCUMENT TYPE: Utility

Granted FILE SEGMENT: PRIMARY EXAMINER:

Kemmerer, Elizabeth

Mintz, Levin, Cohn, Ferris, Glovsky & Popeo, P.C., LEGAL REPRESENTATIVE:

Elrifi, Ivor R., Morency, Michel

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

8 1 LINE COUNT: 2294

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 26 OF 38 USPATFULL on STN

TI Chitin hydrogels, methods of their production and use

This invention is directed to the preparation and utilization of supplemented chitin hydrogels, such as chitosan hydrogels. Further provided are biomaterials comprising same. The particular supplement delivered by the chitin hydrogel is selected as a function of its intended use. In one embodiment, this invention provides a composition of matter, comprising a chitin hydrogel or chitin-derived hydrogel, wherein the hydrogel does not inhibit full-thickness skin wound healing.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2000:128306 USPATFULL

TITLE: Chitin hydrogels, methods of their production and use

INVENTOR(S): Drohan, William N., Springfield, VA, United States MacPhee, Martin J., Gaithersburg, MD, United States

Miekka, Shirley I., Gaithersburg, MD, United States

Singh, Manish S., Columbia, MD, United States

Elson, Clive, Halifax, Canada

Taylor, Jr., John R., New York, NY, United States

PATENT ASSIGNEE(S): Chitogenics, Inc., Morristown, NJ, United States (U.S.

corporation)

The American National Red Cross, Washington, DC, United

States (U.S. corporation)

Coalition for Hemophilia B, New York, NY, United States

(U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 6124273 20000926

APPLICATION INFO.: US 1997-960555 19971013 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1996-659999, filed on 7 Jun

1996, now abandoned

NUMBER DATE

PRIORITY INFORMATION: US 1995-109P 19950609 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Fonda, Kathleen K.
LEGAL REPRESENTATIVE: Lahive & Cockfield, LLP

NUMBER OF CLAIMS: 32
EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 6 Drawing Figure(s); 3 Drawing Page(s)

LINE COUNT: 2441

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 27 OF 38 USPATFULL on STN

TI Single chain analogs of the TGF- β superfamily (morphons)

AB Disclosed are a family of single-chain polypeptide constructs designed to agonize or mimic members of the TGF- β superfamily by binding to a cell surface receptor complementary to the superfamily member. The single-chain constructs of the invention called "morphons" contain in a single biologically active subunit interacting finger and heel regions which together define a tertiary protein structure complimentary to the ligand binding surface of a receptor that binds a TGF- β superfamily member. Also disclosed are truncated versions of the morphon constructs. Methods are disclosed for making and using single-chain morphons that have binding affinity for predetermined receptors of the TGF- β superfamily.

ACCESSION NUMBER:

2000:34675 USPATFULL

TITLE:

Single chain analogs of the TGF- β superfamily

(morphons)

INVENTOR(S):

Keck, Peter C., Millbury, MA, United States

Smart, John E., Weston, MA, United States

PATENT ASSIGNEE(S):

Stryker Corporation, Kalamazoo, MI, United States (U.S.

corporation)

NUMBER KIND DATE _____

PATENT INFORMATION: APPLICATION INFO.:

US 6040431 20000321

DOCUMENT TYPE:

US 1995-478097 19950607 (8)

FILE SEGMENT:

Utility Granted

PRIMARY EXAMINER:

Allen, Marianne P.

LEGAL REPRESENTATIVE:

Testa, Hurwitz & Thibeault, LLP

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS:

39 Drawing Figure(s); 23 Drawing Page(s)

LINE COUNT:

3912

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 28 OF 38 USPATFULL on STN

Terminally sterilized osteogenic devices and preparation thereof TI

Disclosed are terminally sterilized osteogenic devices for implantation AB into a mammal. The devices contain a combination of a biologically active osteogenic protein and an insoluble carrier which after being combined are sterilized by exposure to ionizing radiation, for example, by exposure to gamma rays or an electron beam. The terminally sterilized devices of the invention are characterized in that they induce bone formation following implantation into a mammal. Also disclosed is a method for inducing bone formation in a mammal by implanting a terminally sterilized device of the invention into a preselected locus in a mammal. Also disclosed is a method for preparing

the terminally sterilized device of the invention.

ACCESSION NUMBER:

2000:21736 USPATFULL

TITLE:

Terminally sterilized osteogenic devices and

preparation thereof

INVENTOR(S):

Tucker, Marjorie M., Holliston, MA, United States Rueger, David C., Southborough, MA, United States

Sampath, Kuber T., Holliston, MA, United States

PATENT ASSIGNEE(S):

Stryker Corporation, Kalamazoo, MI, United States (U.S.

corporation)

NUMBER KIND DATE

PATENT INFORMATION: APPLICATION INFO.:

US 6028242 20000222 US 1997-881307 19970624 (8)

RELATED APPLN. INFO.:

Division of Ser. No. US 1995-478452, filed on 7 Jun

1995, now patented, Pat. No. US 5674292

DOCUMENT TYPE:

Utility

FILE SEGMENT: PRIMARY EXAMINER: Granted

ASSISTANT EXAMINER:

Isabella, David J.

LEGAL REPRESENTATIVE:

Black, John M.

Testa, Hurwitz & Thibeault, LLP

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS:

1 Drawing Figure(s); 1 Drawing Page(s)

LINE COUNT:

ANSWER 29 OF 38 USPATFULL on STN L6

Terminally sterilized osteogenic devices and preparation thereof TI

AΒ Disclosed are terminally sterilized osteogenic devices for implantation

into a mammal. The devices contain a combination of a biologically active osteogenic protein and an insoluble carrier which after being combined are sterilized by exposure to ionizing radiation, for example, by exposure to gamma rays or an electron beam. The terminally sterilized devices of the invention are characterized in that they induce bone formation following implantation into a mammal. Also disclosed is a method for inducing bone formation in a mammal by implanting a terminally sterilized device of the invention into a preselected locus in a mammal. Also disclosed is a method for preparing the terminally sterilized device of the invention.

ACCESSION NUMBER:

2000:5017 USPATFULL

TITLE:

Terminally sterilized osteogenic devices and

preparation thereof

INVENTOR(S):

Tucker, Marjorie M., Holliston, MA, United States Rueger, David C., Southborough, MA, United States Sampath, Kuber T., Holliston, MA, United States

PATENT ASSIGNEE(S):

Stryker Corporation, Hopkinton, MA, United States (U.S.

corporation)

NUMBER KIND DATE ______

PATENT INFORMATION:

US 6013856

20000111

APPLICATION INFO .:

US 1998-159535

19980923 (9)

RELATED APPLN. INFO.:

Continuation of Ser. No. US 1997-881307, filed on 24

Jun 1997 which is a division of Ser. No. US

1995-478452, filed on 7 Jun 1995, now patented, Pat.

No. US 5674292

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

PRIMARY EXAMINER:

Smith, Jeffrey A.

ASSISTANT EXAMINER: LEGAL REPRESENTATIVE: Robert, Eduardo C. Testa, Hurwitz & Thibeault LLP

NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS:

1 Drawing Figure(s); 1 Drawing Page(s)

LINE COUNT:

1444

ANSWER 30 OF 38 USPATFULL on STN **L**6

Methods and compositions for multiple gene transfer into bone cells ΤI AB Disclosed are methods, compositions, kits and devices for use in transferring nucleic acids into bone cells in situ and/or for stimulating bone progenitor cells. Type II collagen and, particularly, osteotropic genes, are shown to stimulate bone progenitor cells and to promote bone growth, repair and regeneration in vivo. Gene transfer protocols are disclosed for use in transferring various nucleic acid materials into bone, as may be used in treating various bone-related diseases and defects including fractures, osteoporosis, osteogenesis imperfecta and in connection with bone implants.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

1999:99644 USPATFULL

TITLE:

Methods and compositions for multiple gene transfer

into bone cells

INVENTOR(S):

Bonadio, Jeffrey, Ann Harbor, MI, United States

Goldstein, Steven A., Ann Harbor, MI, United States

PATENT ASSIGNEE(S):

The Regent of The University of Michigan, Ann Arbor,

MI, United States (U.S. corporation)

KIND DATE NUMBER

PATENT INFORMATION:

_____ ___

APPLICATION INFO.:

US 5942496 19990824 US 1994-316650 19940930 (8)

RELATED APPLN. INFO.:

Continuation-in-part of Ser. No. US 1994-199780, filed

on 18 Feb 1994, now patented, Pat. No. US 5763416

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Campell, Bruce R.
ASSISTANT EXAMINER: Nguyen, Dave Trong
LEGAL REPRESENTATIVE: Arnold White & Durkee

NUMBER OF CLAIMS: 130 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 26 Drawing Figure(s); 14 Drawing Page(s)

LINE COUNT: 5310

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 31 OF 38 USPATFULL on STN

Morphogen-responsive signal transducer and methods of use thereof
A novel gene, DD-10, and its encoded polypeptide chain, DD-10, expressed
during early onset of morphogen-induced mammalian tissue morphogenesis,
now has been discovered. Accordingly, the invention identifies a new
gene which is a novel biological marker of cell differentiation and
tissue morphogenesis, particularly of chondroblast or osteoblast cell
differentiation and bone tissue morphogenesis. Disclosed are: (a)
methods and compositions for screening for and producing morphogen
analogs; (b) novel morphogen analogs; (c) downstream inducers of
morphogenesis; (d) a novel marker for evaluating morphogen or morphogen
analog dosing; and (e) therapeutic methods and compositions using these
analogs and/or downstream inducers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 1999:85291 USPATFULL

TITLE: Morphogen-responsive signal transducer and methods of

use thereof

INVENTOR(S): Sampath, Kuber T., Holliston, MA, United States

Takeda, Kohsuke, Ichikawa, Japan Ichijo, Hidenori, Tokyo, Japan

PATENT ASSIGNEE(S): Creative BioMolecules, Inc., Boston, MA, United States

(U.S. corporation)

NUMBER KIND DATE
PATENT INFORMATION: US 5928940 19990727

APPLICATION INFO.: US 1996-727118 19961008 (8)

NUMBER DATE

PRIORITY INFORMATION: US 1996-25311P 19960924 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Campell, Bruce R.

LEGAL REPRESENTATIVE: Testa, Hurwitz & Thibeault, LLP

NUMBER OF CLAIMS: 29 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 13 Drawing Figure(s); 13 Drawing Page(s)

LINE COUNT: 2733

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 32 OF 38 USPATFULL on STN

TI Matrix for the manufacture of autogenous replacement body parts

AB Disclosed are matrices, devices and methods for the manufacture of live autogenous skeletal replacement parts comprising plural different tissues.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 1999:61014 USPATFULL

TITLE: Matrix for the manufacture of autogenous replacement

body parts

Khouri, Roger K., St. Louis, MO, United States INVENTOR(S):

Sampath, Kuber T., Medway, MA, United States Rueger, David C., Hopkinton, MA, United States

Creative BioMolecules, Inc., Hopkinton, MA, United

States (U.S. corporation)

NUMBER KIND DATE _____

US 5906827 19990525 PATENT INFORMATION:

APPLICATION INFO.: US 1994-253398 19940603 (8)

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

Mullis, Jeffrey C. PRIMARY EXAMINER:

Testa, Hurwitz & Thibeault, LLP LEGAL REPRESENTATIVE:

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1

PATENT ASSIGNEE(S):

5 Drawing Figure(s); 2 Drawing Page(s) NUMBER OF DRAWINGS:

LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 33 OF 38 USPATFULL on STN

Terminally sterilized osteogenic devices and preparation thereof TI

Disclosed are terminally sterilized osteogenic devices for implantation AB into a mammal. The devices contain a combination of a biologically active osteogenic protein and an insoluble carrier which after being combined are sterilized by exposure to ionizing radiation, for example, by exposure to gamma rays or an electron beam. The terminally sterilized devices of the invention are characterized in that they induce bone formation following implantation into a mammal. Also disclosed is a method for inducing bone formation in a mammal by implanting a terminally sterilized device of the invention into a preselected locus in a mammal. Also disclosed is a method for preparing the terminally sterilized device of the invention.

ACCESSION NUMBER:

97:90970 USPATFULL

TITLE:

Terminally sterilized osteogenic devices and

preparation thereof

INVENTOR(S):

Tucker, Marjorie M., Holliston, MA, United States Rueger, David C., Southborough, MA, United States Sampath, Kuber T., Holliston, MA, United States

PATENT ASSIGNEE(S):

PATENT INFORMATION:

Stryker Corporation, Kalamazoo, MI, United States (U.S.

corporation)

NUMBER KIND DATE ______ US 5674292 19971007 US 1995-478452 19950607 (8)

APPLICATION INFO.: DOCUMENT TYPE: Utility Granted FILE SEGMENT:

Kulkosky, Peter F. PRIMARY EXAMINER:

LEGAL REPRESENTATIVE:

NUMBER OF CLAIMS:

Testa, Hurwitz & Thibeault, LLP

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)

LINE COUNT:

ANSWER 34 OF 38 DGENE COPYRIGHT 2004 The Thomson Corp on STN L6

Novel methods for repairing a defect in mammalian nonarticular cartilage TI tissue or ligaments using an osteogenic protein in a

biocompatible, bioresorbable carrier

ANAAY92441 protein **DGENE**

Generic Sequence 10 contains generic sequence 9 and an N-terminal AB extension. Generic sequence 9 is a composite amino acid sequence of the following proteins: human OP-1 to -3, human BMP-2 to

-6, -9 to -11, Drosophila 60A, Xenopus Vg-1, sea urchin UNIVIN, human CDMP-1 to -3, human and mouse GDF-1, chicken DORSALIN, DPP, Drosophila Screw, mouse NODAL, mouse GDF-8 to -11, human GDF-8, -11, human BMP-15 and rat BMP3b. The specification concerns a novel method for repairing a defect in a non-articular cartilage tissue or a ligament of a mammal, which comprises providing an osteogenic protein in a biocompatible, bioresorbable carrier to the defect locus to induce the formation of functional replacement cartilage. The methods and implants, promote chondrogenesis and are useful for repairing or correcting a defect in a non-articular cartilage tissue or a ligament of a mammal, e.g. cleft larynx, oedema of the glottis, ulceration of the larynx caused by syphilis, tuberculosis or malignancy, defects resulting from mechanical trauma to the larynx or trachea (including tracheotomy and laryngotomy), laryngeal cancer, and defects of the ear, nose, ribs, invertebral discs, and interarticular menisci.

ACCESSION NUMBER: AAY92441 protein DGENE

TITLE: Novel methods for repairing a defect in mammalian

nonarticular cartilage tissue or ligaments using an

osteogenic protein in a biocompatible,

bioresorbable carrier

INVENTOR: Vukicevic S; Katic V; Sampath K T

PATENT ASSIGNEE: (STYC) STRYKER CORP.

PATENT INFO: WO 2000020021 A1 20000413 65p

APPLICATION INFO: WO 1999-US17222 19990730 PRIORITY INFO: US 1998-103161 19981006

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: 2000-317644 [27]

DESCRIPTION: Generic sequence 10, derived from osteogenic protein family

members.

L6 ANSWER 35 OF 38 DGENE COPYRIGHT 2004 The Thomson Corp on STN

TI Novel methods for repairing a defect in mammalian nonarticular cartilage tissue or ligaments using an osteogenic protein in a

biocompatible, bioresorbable carrier

AN AAY92440 protein DGENE

Generic Sequence 9 is a composite amino acid sequence of the following proteins: human OP-1 to -3, human BMP-2 to -6, -9 to -11, Drosophila 60A, Xenopus Vg-1, sea urchin UNIVIN, human CDMP-1 to -3, human and mouse GDF-1, chicken DORSALIN, DPP, Drosophila Screw, mouse NODAL, mouse GDF-8 to -11, human GDF-8, -11, human BMP-15 and rat BMP3b. The specification concerns a novel method for repairing a defect in a non-articular cartilage tissue or a ligament of a mammal,

which comprises providing an osteogenic protein in a biocompatible, bioresorbable carrier to the

defect locus to induce the formation of functional replacement cartilage. The methods and implants, promote chondrogenesis and are useful for repairing or correcting a defect in a non-articular cartilage tissue or a ligament of a mammal, e.g. cleft larynx, oedema of the glottis, ulceration of the larynx caused by syphilis, tuberculosis or malignancy, defects resulting from mechanical trauma to the larynx or trachea (including tracheotomy and laryngotomy), laryngeal cancer, and defects of the ear, nose, ribs, invertebral discs, and interarticular menisci.

the ear, nose, ribs, invertebral discs, and interarcicular muscles and interarcicular muscles are serious contents.

ACCESSION NUMBER: AAY92440 protein DGENE TITLE: Novel methods for repairing a

Novel methods for repairing a defect in mammalian

nonarticular cartilage tissue or ligaments using an

osteogenic protein in a biocompatible,

bioresorbable carrier

INVENTOR: Vukičevic S; Katic V; Sampath K T

PATENT ASSIGNEE: (STYC) STRYKER CORP.

PATENT INFO: WO 2000020021 A1 20000413 65p

APPLICATION INFO: WO 1999-US17222 19990730 PRIORITY INFO: US 1998-103161 19981006

DOCUMENT TYPE: Patent

LANGUAGE:

English

OTHER SOURCE:

2000-317644 [27]

DESCRIPTION:

Generic sequence 9, derived from osteogenic protein family

ANSWER 36 OF 38 DGENE COPYRIGHT 2004 The Thomson Corp on STN L6

Novel methods for repairing a defect in mammalian nonarticular cartilage TΙ

tissue or ligaments using an osteogenic protein in a

biocompatible, bioresorbable carrier

AN AAY92439 protein DGENE

Generic Sequence 8 contains generic sequence 7 (AAY92438), which ABaccomodates the homologies shared among osteogenic protein family

members, including OP-1, OP-2, OP-3,

BMP-2 to -6, 60A, DPP, Vg-1, Vgr-1 and GDF, as well as an N-terminal addition of 5 residues. The specification concerns a novel method for repairing a defect in a non-articular cartilage tissue or a ligament of a mammal, which comprises providing an osteogenic protein in a biocompatible, bioresorbable carrier to

the defect locus to induce the formation of functional replacement cartilage. The methods and implants, promote chondrogenesis and are useful for repairing or correcting a defect in a non-articular cartilage tissue or a ligament of a mammal, e.g. cleft larynx, oedema of the qlottis, ulceration of the larynx caused by syphilis, tuberculosis or malignancy, defects resulting from mechanical trauma to the larynx or trachea (including tracheotomy and laryngotomy), laryngeal cancer, and defects of the ear, nose, ribs, invertebral discs, and interarticular menisci.

ACCESSION NUMBER: AAY92439 protein DGENE

TITLE:

Novel methods for repairing a defect in mammalian nonarticular cartilage tissue or ligaments using an

osteogenic protein in a biocompatible,

bioresorbable carrier

Vukicevic S; Katic V; Sampath K T INVENTOR:

PATENT ASSIGNEE:

(STYC) STRYKER CORP.

PATENT INFO:

WO 2000020021 A1 20000413

APPLICATION INFO: WO 1999-US17222 19990730 US 1998-103161 PRIORITY INFO: 19981006

DOCUMENT TYPE:

Patent

LANGUAGE:

English

OTHER SOURCE:

2000-317644 [27]

DESCRIPTION:

Generic sequence 8, derived from osteogenic protein family

65p

ANSWER 37 OF 38 DGENE COPYRIGHT 2004 The Thomson Corp on STN L6

TΙ Novel methods for repairing a defect in mammalian nonarticular cartilage tissue or ligaments using an osteogenic protein in a

biocompatible, bioresorbable carrier AAY92438 protein **DGENE**

AN

Generic Sequence 7 accomodates the homologies shared among osteogenic AΒ protein family members, including OP-1, OP-2, OP-3, BMP-2 to -6, 60A, DPP, Vg-1, Vgr-1 and GDF. The

specification concerns a novel method for repairing a defect in a non-articular cartilage tissue or a ligament of a mammal, which comprises providing an osteogenic protein in a biocompatible,

bioresorbable carrier to the defect locus to induce the formation of functional replacement cartilage. The methods and implants, promote chondrogenesis and are useful for repairing or correcting a defect in a non-articular cartilage tissue or a ligament of a mammal, e.g. cleft larynx, oedema of the glottis, ulceration of the larynx caused by syphilis, tuberculosis or malignancy, defects resulting from mechanical trauma to the larynx or trachea (including tracheotomy and laryngotomy), laryngeal cancer, and defects of the ear, nose, ribs,

invertebral discs, and interarticular menisci.

ACCESSION NUMBER: AAY92438 protein

TITLE: Novel methods for repairing a defect in mammalian

nonarticular cartilage tissue or ligaments using an

osteogenic protein in a biocompatible,

bioresorbable carrier

INVENTOR: Vukicevic S; Katic V; Sampath K T

PATENT ASSIGNEE: (STYC) STRYKER CORP.

PATENT INFO: WO 2000020021 A1 20000413 65p

APPLICATION INFO: WO 1999-US17222 19990730 PRIORITY INFO: US 1998-103161 19981006

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: 2000-317644 [27]

DESCRIPTION: Generic sequence 7, derived from osteogenic protein family

members.

L6 ANSWER 38 OF 38 WPIDS COPYRIGHT 2004 THE THOMSON CORP on STN

TI Novel methods for repairing a defect in mammalian nonarticular cartilage tissue or ligaments using an osteogenic protein in a biocompatible , bioresorbable carrier.

AN 2000-317644 [27] WPIDS

CR 2000-317706 [27]

AB WO 200020021 A UPAB: 20041026

NOVELTY - Repairing a defect in a nonarticular cartilage tissue or a ligament of a mammal, comprising providing an osteogenic protein in a biocompatible, bioresorbable carrier to the

defect locus, inducing the formation of functional replacement cartilage, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an implantable device for repairing a defect in a nonarticular cartilage tissue comprising an osteogenic protein disposed in a devitalized cartilage, a collagen **carrier**, or a carboxymethylcellulose **carrier**; and
- (2) promoting chondrogenesis at a defect locus in a mammal comprising providing an osteogenic protein in a devitalized cartilage carrier that is configured to fit into the defect locus.

ACTIVITY - Osteogenic; chondrogenic.

MECHANISM OF ACTION - Osteopathic stimulating implant; transplantation.

USE - The methods and implants are useful for repairing or correcting a defect in a nonarticular cartilage tissue or a ligament of a mammal, e.g. cleft larynx, edema of the glottis, ulceration of the larynx caused by syphilis, tuberculosis or malignancy, defects resulting from mechanical trauma to the larynx or trachea (including tracheotomy and laryngotomy), laryngeal cancer, and defects of the ear, nose, ribs, invertebral discs, and interarticular menisci.

Dwg.0/0

ACCESSION NUMBER: 2000-317644 [27] WPIDS

CROSS REFERENCE: 2000-317706 [27]

DOC. NO. CPI: C2000-096081

TITLE: Novel methods for repairing a defect in mammalian nonarticular cartilage tissue or ligaments using an

osteogenic protein in a biocompatible,

bioresorbable carrier.

DERWENT CLASS: A96 B04 D22

INVENTOR(S): AN, H; MASUDA, K; THONAR, E J A; KATIC, V; SAMPATH, K T;

VUKICEVIC, S

PATENT ASSIGNEE(S): (ANHH-I) AN H; (RUSH-N) RUSH PRESBYTERIAN ST LUKE MEDICAL

CENT; (STYC) STRYKER CORP; (CREA-N) CREATIVE BIOMOLECULES

INC

COUNTRY COUNT:

23

PATENT INFORMATION:

PATENT NO KIND DATE WEEK LA PG

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WO 2000020021 A1 20000413 (200027)* EN 64
       RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
        W: AU CA JP US
                    A 20000426 (200036)
    AU 9952417
                    A1 20010725 (200143) EN
    EP 1117422
        R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
    US 2001024823 A1 20010927 (200159)
    JP 2002526167 W 20020820 (200258)
                                              70
    AU 772479 B2 20040429 (200457)
    AU 2004202345 A1 20040624 (200468)#
APPLICATION DETAILS:
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     _______
    WO 2000020021 A1
                                      WO 1999-US17222
                                                           19990730
    AU 9952417
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                                                           19990730
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                                      WO 1999-US17222
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                                      US 1998-103161P
    US 2001024823
                   Al Provisional
                                                           19981006
                     Cont of
                                      WO 1999-US17222
                                                           19990730
                                      US 2001-828607
                                                           20010406
    JP 2002526167
                                      WO 1999-US17222
                                                           19990730
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    AU 772479
                    B2
                                      AU 1999-52417
                                                           19990730
    AU 2004202345 A1
                                      AU 2004-202345
                                                           20040526
FILING DETAILS:
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    PATENT NO
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    AU 9952417 A Based on WO 2000020021
EP 1117422 A1 Based on WO 2000020021
JP 2002526167 W Based on WO 2000020021
    AU 772479
                   B2 Previous Publ. AU 9952417
                     Based on WO 2000020021
    AU 2004202345
                    A1 Div ex
                                     AU 770725
PRIORITY APPLN. INFO: US 1998-103161P
                                        19981006; US
                     2001-828607
                                    20010406; AU
                     2004-202345
                                      20040526
=> s nonarticular cartilage
           28 NONARTICULAR CARTILAGE
=> d his
     (FILE 'HOME' ENTERED AT 17:10:16 ON 01 DEC 2004)
    FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, FSTA, JICST-EPLUS,
    BIOSIS' ENTERED AT 17:10:42 ON 01 DEC 2004
          524 S CARRIER AND BIORESORBABLE
           367 S L1 AND BIOCOMPATIBLE
1.2
L3
         22208 S BMP
         69969 S OP
L4
         2177 S L3 AND L4
L5
L6
           38 S L5 AND L2
L7
            28 S NONARTICULAR CARTILAGE
=> s 17 and 16
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T.1

T.8

6 L7 AND L6

ANSWER 1 OF 6 USPATFULL on STN 1.8

TI Repair of larynx, trachea, and other fibrocartilaginous tissues

AΒ Provided herein are methods and devices for inducing the formation of functional replacement nonarticular cartilage

tissues and ligament tissues. These methods and devices involve the use of osteogenic proteins, and are useful in repairing defects in the larynx, trachea, interarticular menisci, intervertebral discs, ear, nose, ribs and other fibrocartilaginous tissues in a mammal.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:165613 USPATFULL

TITLE: Repair of larynx, trachea, and other fibrocartilaginous

INVENTOR(S): Vukicevic, Slobodan, Zagreb, Croatia

Katic, Vladimir, Zagreb, Croatia

Sampath, Kuber T., Holliston, MA, United States

Creative BioMolecules, Inc. (non-U.S. corporation) PATENT ASSIGNEE(S):

NUMBER KIND DATE PATENT INFORMATION: US 2001024823 A1 20010927

APPLICATION INFO.: US 2001-828607 A1 20010406 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. WO 1999-US17222, filed on 30

Jul 1999, UNKNOWN

NUMBER DATE -----

PRIORITY INFORMATION: US 1998-103161P 19981006 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: FISH & NEAVE, 1251 AVENUE OF THE AMERICAS, 50TH FLOOR,

NEW YORK, NY, 10020-1105

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1 LINE COUNT: 1859

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8ANSWER 2 OF 6 DGENE COPYRIGHT 2004 The Thomson Corp on STN

Novel methods for repairing a defect in mammalian nonarticular TТ cartilage tissue or ligaments using an osteogenic protein in a biocompatible, bioresorbable carrier

AAY92441 protein DGENE AN

AΒ Generic Sequence 10 contains generic sequence 9 and an N-terminal extension. Generic sequence 9 is a composite amino acid sequence of the following proteins: human OP-1 to -3, human BMP-2 to -6, -9 to -11, Drosophila 60A, Xenopus Vg-1, sea urchin UNIVIN, human CDMP-1 to -3, human and mouse GDF-1, chicken DORSALIN, DPP, Drosophila Screw, mouse NODAL, mouse GDF-8 to -11, human GDF-8, -11, human BMP-15 and rat BMP3b. The specification concerns a novel method for repairing a defect in a non-articular cartilage tissue or a ligament of a mammal, which comprises providing an osteogenic protein in a biocompatible, bioresorbable carrier to the defect locus to induce the formation of functional replacement cartilage. The methods and implants, promote chondrogenesis and are useful for

repairing or correcting a defect in a non-articular cartilage tissue or a ligament of a mammal, e.g. cleft larynx, oedema of the glottis, ulceration of the larynx caused by syphilis, tuberculosis or malignancy, defects resulting from mechanical trauma to the larynx or trachea (including tracheotomy and laryngotomy), laryngeal cancer, and defects of the ear, nose, ribs, invertebral discs, and interarticular menisci.

ACCESSION NUMBER: AAY92441 protein **DGENE**

TITLE: Novel methods for repairing a defect in mammalian nonarticular cartilage tissue or ligaments
using an osteogenic protein in a biocompatible,

bioresorbable carrier

INVENTOR: Vukicevic S; Katic V; Sampath K T

PATENT ASSIGNEE: (STYC) STRYKER CORP.

PATENT INFO: WO 2000020021 A1 20000413 65p

APPLICATION INFO: WO 1999-US17222 19990730 PRIORITY INFO: US 1998-103161 19981006

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: 2000-317644 [27]

DESCRIPTION: Generic sequence 10, derived from osteogenic protein family

members.

L8 ANSWER 3 OF 6 DGENE COPYRIGHT 2004 The Thomson Corp on STN
TI Novel methods for repairing a defect in mammalian nonarticular cartilage tissue or ligaments using an osteogenic protein in a

biocompatible, bioresorbable carrier

AN AAY92440 protein DGENE

AB Generic Sequence 9 is a composite amino acid sequence of the following proteins: human OP-1 to -3, human BMP-2 to -6, -9 to -11, Drosophila 60A, Xenopus Vg-1, sea urchin UNIVIN, human CDMP-1 to -3, human and mouse GDF-1, chicken DORSALIN, DPP, Drosophila Screw, mouse NODAL, mouse GDF-8 to -11, human GDF-8, -11, human BMP-15 and rat BMP3b. The specification concerns a novel method for repairing a defect in a non-articular cartilage tissue or a ligament of a mammal, which comprises providing an osteogenic protein in a

biocompatible, bioresorbable carrier to the

defect locus to induce the formation of functional replacement cartilage. The methods and implants, promote chondrogenesis and are useful for repairing or correcting a defect in a non-articular cartilage tissue or a ligament of a mammal, e.g. cleft larynx, oedema of the glottis, ulceration of the larynx caused by syphilis, tuberculosis or malignancy, defects resulting from mechanical trauma to the larynx or trachea (including tracheotomy and laryngotomy), laryngeal cancer, and defects of the ear, nose, ribs, invertebral discs, and interarticular menisci.

ACCESSION NUMBER: AAY92440 protein DGENE

TITLE: Novel methods for repairing a defect in mammalian

nonarticular cartilage tissue or ligaments using an osteogenic protein in a biocompatible,

bioresorbable carrier

INVENTOR: Vukicevic S; Katic V; Sampath K T

PATENT ASSIGNEE: (STYC) STRYKER CORP.

PATENT INFO: WO 2000020021 A1 20000413 65p

APPLICATION INFO: WO 1999-US17222 19990730 PRIORITY INFO: US 1998-103161 19981006

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: 2000-317644 [27]

DESCRIPTION: Generic sequence 9, derived from osteogenic protein family

members.

L8 ANSWER 4 OF 6 DGENE COPYRIGHT 2004 The Thomson Corp on STN
TI Novel methods for repairing a defect in mammalian nonarticular
cartilage tissue or ligaments using an osteogenic protein in a
biocompatible, bioresorbable carrier

AN AAY92439 protein DGENE

AB Generic Sequence 8 contains generic sequence 7 (AAY92438), which accommodates the homologies shared among osteogenic protein family members, including OP-1, OP-2, OP-3,

BMP-2 to -6, 60A, DPP, Vg-1, Vgr-1 and GDF, as well as an N-terminal addition of 5 residues. The specification concerns a novel method for repairing a defect in a non-articular cartilage tissue or a ligament of a mammal, which comprises providing an osteogenic protein in

a biocompatible, bioresorbable carrier to

the defect locus to induce the formation of functional replacement cartilage. The methods and implants, promote chondrogenesis and are useful for repairing or correcting a defect in a non-articular cartilage tissue or a ligament of a mammal, e.g. cleft larynx, oedema of the glottis, ulceration of the larynx caused by syphilis, tuberculosis or malignancy, defects resulting from mechanical trauma to the larynx or trachea (including tracheotomy and laryngotomy), laryngeal cancer, and defects of the ear, nose, ribs, invertebral discs, and interarticular menisci.

ACCESSION NUMBER: AAY92439 protein DGENE

TITLE: Novel methods for repairing a defect in mammalian

nonarticular cartilage tissue or ligaments using an osteogenic protein in a biocompatible,

bioresorbable carrier

INVENTOR: Vukicevic S; Katic V; Sampath K T

PATENT ASSIGNEE: (STYC) STRYKER CORP.

PATENT INFO: WO 2000020021 A1 20000413 65p

APPLICATION INFO: WO 1999-US17222 19990730 PRIORITY INFO: US 1998-103161 19981006

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: 2000-317644 [27]

DESCRIPTION: Generic sequence 8, derived from osteogenic protein family

members.

L8 ANSWER 5 OF 6 DGENE COPYRIGHT 2004 The Thomson Corp on STN
TI Novel methods for repairing a defect in mammalian nonarticular
cartilage tissue or ligaments using an osteogenic protein in a
biocompatible, bioresorbable carrier

AN AAY92438 protein DGENE

AB Generic Sequence 7 accommodates the homologies shared among osteogenic protein family members, including OP-1, OP-2, OP-3, BMP-2 to -6, 60A, DPP, Vq-1, Vqr-1 and GDF. The

specification concerns a novel method for repairing a defect in a non-articular cartilage tissue or a ligament of a mammal, which comprises providing an osteogenic protein in a biocompatible,

providing an osteogenic protein in a biocompatible, bioresorbable carrier to the defect locus to induce the formation of functional replacement cartilage. The methods and implants, promote chondrogenesis and are useful for repairing or correcting a defect in a non-articular cartilage tissue or a ligament of a mammal, e.g. cleft larynx, oedema of the glottis, ulceration of the larynx caused by syphilis, tuberculosis or malignancy, defects resulting from mechanical trauma to the larynx or trachea (including tracheotomy and laryngotomy), laryngeal cancer, and defects of the ear, nose, ribs,

invertebral discs, and interarticular menisci.
ACCESSION NUMBER: AAY92438 protein DGENE

TITLE: Novel methods for repairing a defect in mammalian

nonarticular cartilage tissue or ligaments using an osteogenic protein in a biocompatible,

bioresorbable carrier

INVENTOR: Vukicevic S; Katic V; Sampath K T

PATENT ASSIGNEE: (STYC) STRYKER CORP.

PATENT INFO: WO 2000020021 A1 20000413 65p

APPLICATION INFO: WO 1999-US17222 19990730 PRIORITY INFO: US 1998-103161 19981006

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: 2000-317644 [27]

DESCRIPTION: Generic sequence 7, derived from osteogenic protein family

members.

L8 ANSWER 6 OF 6 WPIDS COPYRIGHT 2004 THE THOMSON CORP on STN TI Novel methods for repairing a defect in mammalian nonarticular

cartilage tissue or ligaments using an osteogenic protein in a biocompatible, bioresorbable carrier.

ΑN 2000-317644 [27] WPIDS

2000-317706 [27] CR

AΒ WO 200020021 A UPAB: 20041026

NOVELTY - Repairing a defect in a nonarticular cartilage

tissue or a ligament of a mammal, comprising providing an osteogenic

protein in a biocompatible, bioresorbable

carrier to the defect locus, inducing the formation of functional replacement cartilage, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an implantable device for repairing a defect in a nonarticular cartilage tissue comprising an osteogenic protein disposed in a devitalized cartilage, a collagen carrier, or a carboxymethylcellulose carrier; and
- (2) promoting chondrogenesis at a defect locus in a mammal comprising providing an osteogenic protein in a devitalized cartilage carrier that is configured to fit into the defect locus.

ACTIVITY - Osteogenic; chondrogenic.

MECHANISM OF ACTION - Osteopathic stimulating implant; transplantation.

USE - The methods and implants are useful for repairing or correcting a defect in a nonarticular cartilage tissue or a ligament of a mammal, e.g. cleft larynx, edema of the glottis, ulceration of the larynx caused by syphilis, tuberculosis or malignancy, defects resulting from mechanical trauma to the larynx or trachea (including tracheotomy and laryngotomy), laryngeal cancer, and defects of the ear, nose, ribs, invertebral discs, and interarticular menisci.

Dwg.0/0

ACCESSION NUMBER:

2000-317644 [27] WPIDS

CROSS REFERENCE: DOC. NO. CPI:

2000-317706 [27] C2000-096081

TITLE:

Novel methods for repairing a defect in mammalian

nonarticular cartilage tissue or

ligaments using an osteogenic protein in a

biocompatible, bioresorbable

carrier.

DERWENT CLASS:

A96 B04 D22

INVENTOR(S):

AN, H; MASUDA, K; THONAR, E J A; KATIC, V; SAMPATH, K T;

VUKICEVIC, S

PATENT ASSIGNEE(S):

(ANHH-I) AN H; (RUSH-N) RUSH PRESBYTERIAN ST LUKE MEDICAL

CENT; (STYC) STRYKER CORP; (CREA-N) CREATIVE BIOMOLECULES

COUNTRY COUNT:

23

PATENT INFORMATION:

PATENT NO KIND DATE WEEK PG ____

WO 2000020021 A1 20000413 (200027)* EN

RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

W: AU CA JP US

AU 9952417 A 20000426 (200036)

EP 1117422 A1 20010725 (200143) EN

R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

US 2001024823 A1 20010927 (200159)

JP 2002526167 W 20020820 (200258) 70

B2 20040429 (200457) AU 772479 AU 2004202345 A1 20040624 (200468)#

APPLICATION DETAILS:

PATENT NO DATE KIND APPLICATION

F-7.0	000000001	7. 7		T-IO	1999-US17222	19990730
WO	2000020021	A1		WO	1999-001/222	13330130
ΑU	9952417	Α		ΑU	1999-52417	19990730
ΕP	1117422	A1		ΕP	1999-937624	19990730
				WO	1999-US17222	19990730
US	2001024823	A1	Provisional	US	1998-103161P	19981006
			Cont of	WO	1999-US17222	19990730
				US	2001-828607	20010406
JΡ	2002526167	W		WO	1999-US17222	19990730
				JΡ	2000-573380	19990730
AU	772479	B2		AU	1999-52417	19990730
ΑU	2004202345	A 1		AU	2004-202345	20040526

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PATENT NO	KIND	PATENT NO
AU 9952417	A Based on	WO 2000020021
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JP 2002526167	W Based on	WO 2000020021
AU 772479	B2 Previous Publ.	AU 9952417
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